

ABSTRACT

An improved cyclone system for disengaging solid and gaseous particles in fluid catalytic cracking (FCC) processes with reduced coke formation in disengager vessels, without favoring release of the disengaged catalyst into cyclones in subsequent stages, said system comprising legless cyclones 42 fitted with external collector pipes 43, is described.

The collector pipes 43 optimize the purge of gases coming from the disengager vessel 49, reducing the time the hydrocarbons remain inside said disengager vessel 49, thus preventing overcracking and subsequent coke formation. Positioning of the external collector pipes 43 prevents release of the disengaged catalyst into cyclones in subsequent stages.

The present invention also relates to a process and device for disengaging solid and gaseous particles in fluid catalytic cracking (FCC) processes, reducing coke formation in disengager vessels and minimizing the release of catalyst into consecutive stages, said process and device being part of the system of the present invention.